Safety Advisory Committee
January 15, 2010
10:00 AM – 12:00 PM

Minutes

Committee Member	Representing	Present
Anderson, Erik	Materials Sciences Division	X
Banda, Michael J.	Computing Sciences Directorate	X
Bello, Madelyn	Human Resources Advisor	
Blodgett, Paul M.	Environment, Health and Safety Division	X
Christensen, John N.	Earth Sciences Division	X
Earnest, Thomas N.	Physical Biosciences Division	X
Floyd, Jim	Safety Advisory Committee Chair	
Fujikawa, Brian	Nuclear Science Division	X
Ji, Qing	Accelerator & Fusion Research Division	
Lowden, Rosemary	Information Technology Division	X
Lukens Jr., Wayne W.	Chemical Sciences Division	X
Lunden, Melissa	Environmental Energy Technologies Division	X
Madaras, Ron	Physics Division	X
Martin, Michael C.	Advanced Light Source Division	X
More, Anil V.	Office of the CFO Advisor	
Patterson, Pam	Public Affairs Advisor	
Pollard, Martin	Genomics Division	X
Taylor, Scott E.	Life Sciences Division	X
Thomas, Patricia M.	Safety Advisory Committee Secretary	X
Wong, Weyland	Engineering Division	X

Others Present: Mike Carr, Bandon DeFrancisci, Joe Dionne, Douglas Fleming, Julie Henderson, Howard Hatayama, Michael Kritscher, Robert Mueller, Bill Wells, Rick Kelly

Chairman's Comments – Jim Floyd

- The minutes of the January meeting were approved with one correction.
- New Environment, Health, and Safety (EHS) Division Director Doug Fleming was introduced by Howard Hatayama. Doug Fleming is just getting to know names and functions, and becoming familiar with the complexity of LBNL. Jim Floyd explained that the Committee assists EHS with issues of broad importance to the Lab. Committee members are mostly working scientists, or operations people who speak to their Division Director.
- There was a suggestion that the Committee have "United Nations" style name placards, because we have many new members.

Annual Meeting Planning – Jim Floyd

Jim Floyd asked for input on discussion topics for the February meeting with the Lab Director. The topics discussed included:

- Safety implications for space management – The LBNL strategic plan will bring in new researchers. The processes of planning, allocating, and renovating space and moving people need a coordination function.
- Carbon Cycle 2.0 – The details of this initiative were not well defined yet. Presentations were scheduled for the following week.
- Work Planning and Control – The concept is being expanded. Safety will be integrated into an overall work planning system. The existing Job Hazards Analysis (JHA) will be replaced. Committee members commented that they did not like the mixing of security training with safety in the JHA.
- Biosafety, chemical safety, and nanotechnology are increasing in importance. The alternative fuel development initiatives will result in production of larger volumes of hydrocarbons. There may be new waste management issues.
- Integrated Safety Management Plans, self-assessment, roles and responsibilities, and processes for addressing non-compliance with training were also mentioned.

Jim Floyd will meet with Paul Alivisatos and send out an agenda. Committee members suggested that Jim Floyd:

- Ask the Lab Director what he thinks is important.
- Discuss the Peer Review process.
- Discuss the importance of Lab Management leadership.
- Talk about improving general safety culture at the Lab. What would a functioning safety culture look like? LBNL can learn from principles and systems at other places, but there are culture issues everywhere. A cultural change expert might be helpful. LBNL is different from academia, and we need to communicate the culture to new people. Safety needs to embrace everyone. The Health, Safety, and Security (HSS) auditors were impressed that work was being done safely – how could we continue this culture?
- Discuss the need for a structure and databases that describe and support the safety culture.
- Ask what kind of environmental management culture LBNL wants. What concerns and goals are important? Should the recycling / composting programs be expanded?

Cryogen Safety – Mike Martin

The new PUB-3000 chapter, training, and oxygen deficiency calculator tool are ready for use. Jim Floyd, Michael Martin, Wayne Lukens, Rick Kelly, and Joe Dionne worked on the chapter. This was a test case for SAC/EHS collaboration. The development process

took about 3 months. Information was posted on the SAC eroom for comment. Information includes the oxygen deficiency hazard calculator, Activity Hazard Document (AHD) process, oxygen monitoring, and a quick guide for simple cases. The new format is to have a brief chapter with details in appendices. The format is based on tasks, hazards, and controls. The Quick Guide will be key to implementation. Feedback on the format should be submitted to Mike Wisherop. Feedback on calculations and technical issues should be submitted to Joe Dionne, and feed back on training should be submitted to Lara Jain. Committee members had no objections to moving forward with the chapter.

The oxygen deficiency calculator will be used to help determine where AHDs are needed. The calculations have been tested on some rooms in buildings 67, 70, 70A, and 84. They will be looking at the ALS hutches. There is already an AHD in place for the one Category 3 hazard identified so far. In some cases, the hazard class can be reduced by reducing the volume of cryogens in the room. Ventilation can also be considered, if it does not shut down during a power outage. Level 1 hazards will require a monitor, but not an AHD. Level 2 and above hazards will require a monitor and an AHD.

The responsibility for purchasing and testing oxygen deficiency monitors remains with the Principle Investigator (PI). The option of Facilities maintaining and testing the monitors may be considered. There may be too many for Facilities to manage. The scope needs to be defined. Committee members recommended that there be a central program to take care of the monitors if there is a large risk. It could be similar to the programs for fume hoods or radiation monitors. The choice is between an increase in overhead charges or an increase in PI's responsibilities.

A cataclysmic release test was conducted by opening a valve and measuring the weight change rate. The release rate was about 10 liters/minute, similar to the assumption. EHS would like to test the release in an enclosed space.

The new on-line training is available. EHS0170 is the new cryogenics safety course and EHS0171 covers pressure safety. The JHA will be revised. EHS0171 takes about two hours to complete and needs to be revised. Previous training may be grandfathered in. People will also need On-the-Job training on the systems they will be using. EHS is looking for feedback from scientists on EHS0170.

The next step is to communicate the new chapter, and do risk assessments in rooms with cryogens in them.

Roles and Responsibilities – Don Lucas

The most recent version of the Roles and Responsibilities policy has been accepted by Jim Krupnick. The accountability framework is being revised, using Human Performance Indicator principles.

Roles and responsibilities in rental space need to be defined. Buildings 851 and 831 differ in how responsibilities for the safety of the landlord's subcontractors are handled. The responsibilities have not been described adequately in the contracts and needs clarity.

Access Control – Don Lucas

General Employee Radiation Training completion was tied to badge readers, with few problems. The next step is to tie required training to access to property protection areas, including the Hazardous Waste Handling Facility, radiation areas, select agent labs, and the Advanced Light Source (Bldg. 6). There is an interest in expanding the pilot program to the Molecular Foundry. Third-party software is being purchased. There are some important questions that need to be addressed:

- Can training required by work authorizations, such as Radiological Work Authorizations, be included?
- Can the databases talk to each other?
- Who determines the training required for access?
- Will PIs have override capability?

The third step will be to include x-ray machines and radiological areas. The fourth step is to include other locations with formal authorizations.

There could be problems in areas with multiple authorizations in the same space. The software would have to work for subsets of rooms and training. We should look at the risk to define training requirements.

Maintaining access lists will also be an issue. There is no "owner" to the proximity card system. Mike Carreon and Bob Ngim are the primary contacts now. PIs should be able to check and update lists.

There are also associated hardware costs – about $1K per door. The wiring is being included in new and renovated buildings. We may be able to drop the General Employee Radiation Training requirement after all doors to radiation areas have card-key locks. EHS and users will split the costs of interlock engineers.

There are questions about how to grant access for Facilities personnel working in areas temporarily, and for emergency response personnel.

Access control is important. Don Lucas recommended that LBNL move forward and solve problems as we go. There is some money to work on the project this year.

Peer Review – Jim Floyd

The pilot Peer Review will be conducted for Materials Sciences Division. The candidates for doing the review will be contacted. The process is being developed. The first review is expected to occur in late January or early February. We will try to do one more this year.

Integrated Safety Management (ISM) Plan Update – Bill Wells

The ISM Plan update has been posted. It includes updates to terminology and changes to the ISM checklist. Bill Wells will be doing more coordination with the Division Safety Coordinators.

The meeting was adjourned at 12:00 PM
Respectfully submitted, Patricia M. Thomas, SAC Secretary